

<b>Inspection Criteria Reference</b>	<b>TAIP GUIDE</b>	<b>Appendix D</b> Page: Instruction
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## Inspection Criteria Reference (ICR) for Tank Barges (Subchapters D & O)

The **Inspection Criteria Reference (ICR)** is the primary reference source for a Company TAIP Examiner when conducting an annual inspection. It provides a detailed description of the specific inspection procedures for each vessel system and subsystem, and uses standardized forms that are grouped by system. Each ICR procedure sheet has four sections.

- **Section One** identifies the System, Subsystem, and the ICR Number to identify the specific inspection item being addressed.
- **Section Two** provides Authorization info for the specific inspection item: who is the authorized examiner, what specific CFR cites apply, and what is the inspection frequency for the item.
- **Section Three** provides the Inspection Criteria; that is, the specific procedures to follow when inspecting this specific item (including how to determine if the item is in compliance).
- **Section Four** identifies Deficiency Action: what actions are required if the item is found deficient.

In order to prepare the form, the Company TAIP Representative will:

- Delete those ICR items that do not apply to the tank barge in question.
- Add ICR procedure sheets for any of the tank barge systems that are required to be inspected but are not already included in this “generic” ICR.
- Note all changes on the Record of Changes page.

**CAVEAT:** Under no circumstances is the list contained here to be considered complete for all tank barges that may be enrolled in the TAIP. It is provided as a template only. ICR procedures are to be provided for all tank barge systems that are required to be inspected. These systems are identified in relevant sections of Titles 33, 46 (particularly Subchapters D and O), and 49 of the Code of Federal Regulations (CFR). Additional inspection requirements may be applicable in sources such as IMO Conventions, Treaties, Navigation and Inspection Circulars (NVICs), the Marine Safety Manual, and official Coast Guard policy letters. The ICR should be reviewed periodically for currency and revised to reflect any relevant changes in the underlying regulations, treaties, or policy.

# INSPECTION CRITERIA REFERENCE (ICR)

for U.S. flag Tank Barges

(Subchapter D/O)

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# RECORD OF CHANGES

[illegible]

**SYSTEM:** Documents & Paperwork  
**SUBSYSTEM:** Required Documents

**ICR NUMBER: A**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: TAIP EXAMINER  
REFERENCES: VARIOUS  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Verify that the following documents are on board and current:

- a. Certificate of Inspection
  - b. OPA 90 approval letter and emergency notification procedures
  - c. Certificate of Financial Responsibility
  - d. Certificate of Documentation (If required)
  - e. Stability Letter (If required)
  - f. Transfer Procedures
  - g. Vapor control system procedures (if applicable)
  - h. Benzene monitoring program (if applicable)
  - i. Pipeline, relief valve, pressure gauge hydrostatic test affidavit
- 

### **DEFICIENCY ACTION**

OBTAIN CURRENT DOCUMENT AND PLACE ONBOARD PRIOR TO OPERATION.

**SYSTEM:** Documents & Paperwork  
**SUBSYSTEM:** Pollution/MARPOL

**ICR NUMBER: A**  
**02**

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**AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 121.702, 33 CFR 155.450, MARPOL 73/781  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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**INSPECTION CRITERIA**

The following applies to a tank barge that is 26' or more in length:

Verify the legibility of the MARPOL Annex I -"DISCHARGE OF OIL PROHIBITED" placard, as displayed in the machinery space or bilge and ballast pump control station.

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**DEFICIENCY ACTION**

PROVIDE PLACARD ONBOARD.

**SYSTEM:** Documents & Paperwork  
**SUBSYSTEM:** Notices & Markings

**ICR NUMBER: A**  
**03**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 35.30-1  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually inspect all warning signs and ensure they are legible:

- a. Expansion domes and slop tank openings are properly marked "Danger Keep Out"
  - b. Warning signs in place with required information
  - c. Red flag in place and painted, red light operable.
  - d. White safety stripe on deck perimeter is clearly marked
  - e. Cargo Information Cards or Material Safety Data Sheets for cargoes carried are onboard or posted
- 

### **DEFICIENCY ACTION**

Take appropriate action to ensure compliance

**SYSTEM:** Firefighting Equipment  
**SUBSYSTEM:** Portable Fire Extinguishers

**ICR NUMBER: B  
01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 31.10-18(B)  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Verify the following:

- a. Ensure pressure gauge is in the operating range
  - b. Ensure proper size and type required onboard as required by COI
  - c. Ensure USCG or UL approved
  - d. Properly serviced and tested IAW 46 CFR Table 31.10-18(b)
  - e. Check inspection tag for current service date
  - f. Ensure seal is intact
  - g. Check general condition of unit including hoses/nozzles
  - h. Check for proper hydro date (If applicable)
  - i. Check stations for brackets, markings, accessibility
- 

### **DEFICIENCY ACTION**

Recharge or replace portable extinguisher



**SYSTEM:** Hull & Deck Fittings  
**SUBSYSTEM:** Navigation Lights, Dayshapes, and  
Navigation Light Stands

**ICR NUMBER: C**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 31  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually verify:

- a. Configuration of navigation lights or dayshapes is correct.
  - b. Navigation light stands are not missing or bent.
  - c. Interiors of stands are painted flat black.
  - d. Lights burn brightly when energized.
- 

### **DEFICIENCY ACTION**

REPLACE/REPAIR DEFICIENT ITEMS

**SYSTEM:** Ground Tackle & Deck Machinery  
**SUBSYSTEM:** Bitts, Cleats, Chocks, Winches,  
Deck and Sideshell

**ICR NUMBER: D**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 31.10-17  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually verify:

- a. Winches are in serviceable condition
  - b. No safety hazards on deck
  - c. Bitts, cleats, and chocks are in serviceable condition
  - d. Ladders, rails guards, and lifelines are in good condition
- 

### **DEFICIENCY ACTION**

REPLACE/REPAIR DEFICIENT ITEMS.

**SYSTEM:** Hull & Deck Fittings  
**SUBSYSTEM:** Void Spaces

**ICR NUMBER: E**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 32.20-5, 39.20-11  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually inspect:

- a. Hatches to ensure that gaskets are in serviceable condition and secure
  - b. Rakes and void spaces checked to ensure they are free of excess water (3 inches or less) or any product
  - c. Deck structure and side shell are free of cracks/fractures
  - d. Hull has no visible or known holes/fractures
- 

### **DEFICIENCY ACTION**

Make appropriate repairs (see Section VII, "Temporary Repairs" in TAIP Guide for instructions).

**SYSTEM:** Hull & Deck Fittings  
**SUBSYSTEM:** Proper Hull Markings

**ICR NUMBER: E**  
**02**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 31.25-1, 32.05-1, 42.13-40, and 67.123  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually inspect all hull markings and ensure they are painted and legible:

- a. Draft marks port/starboard, bow/stern
  - b. Barge name/number, port/starboard side of barge in contrasting color
  - c. Loadline markings permanently marked port/starboard side of barge and painted contrasting color
  - d. Hailing port painted on stern
- 

### **DEFICIENCY ACTION**

Repaint faded or worn markings

**SYSTEM:** Hull & Deck Fittings  
**SUBSYSTEM:** Loadline

**ICR NUMBER:** E  
03

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 42  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually verify:

- a. Loadline is permanently affixed.
  - b. All marks are easily visible.
  - c. Copy of loadline certificate carried aboard.
- 

### **DEFICIENCY ACTION**

REPLACE/REPAIR DEFICIENT ITEMS

**SYSTEM:** Electrical  
**SUBSYSTEM:** Generator & Generator Electrical Set

**ICR NUMBER: F**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46CFR 110.30-5, Part 111  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

- A. EACH INDIVIDUAL GENERATOR
1. Ensure the location of the generator is receiving adequate ventilation and is as dry as possible.
  2. Verify the operation of the voltmeter and ammeter for each generator rated at 50 volts or more.
  3. Verify the operation of the frequency measuring device for each AC generator.
  4. Verify a nameplate containing the information required by Article 445 or Article 430 of the NEC is attached.
  5. Verify each generator is protected by an overcurrent device with a set value not exceeding 115% of full load rating.
- 

### **DEFICIENCY ACTION**

REPLACE OR REPAIR DEFICIENT ITEM. ENSURE IT IS OPERATING PROPERLY.

**SYSTEM:** Electrical  
**SUBSYSTEM:** Generator & Generator Electrical Set

**ICR NUMBER: F**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46CFR 110.30-5, Part 111  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA (continued)**

#### **B. MULTIPLE GENERATOR INSTALLATIONS**

1. For non-parallel systems; verify the operation of the interlock which prevents simultaneous connection to the switchboard.
2. For parallel systems;
  - a. test the operation of the reverse-power or reverse-current trips,
  - b. verify the operation of the switchboard speed control for each prime mover,
  - c. verify the operation of the wattmeter for each generator, and
  - d. verify the operation of the synchroscope and synchronizing lamp that has a selector switch to show synchronization for paralleling generators.

#### **C. DUAL VOTAGE GENERATORS**

1. Verify the neutral of the voltage system is solidly connected to the switchboard's neutral bus.
  2. Verify the neutral bus is connected to ground.
  3. Verify ground detection;
    - a. For AC systems verify the ammeter indicates the current in the ground connection and has a scale that accurately measures in the 0 to 10 ampere range, and verify the ammeter switch is of the spring return-to-on type.
    - b. For DC systems verify that the zero center ammeter is in the ground connection, has a scale range of 150% of the neutral current rating and has the polarity of the ground marked.
- 

### **DEFICIENCY ACTION**

REPLACE OR REPAIR DEFICIENT ITEM. ENSURE IT IS OPERATING PROPERLY.

**SYSTEM:** Electrical  
**SUBSYSTEM:** Generator & Generator Electrical Set

**ICR NUMBER: F**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46CFR 110.30-5, Part 111  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA (continued)**

#### **D. SWITCHBOARDS**

1. General overview of the physical condition should be given to the entire switchboard.
  2. Ensure there is a non-conductive mat or non-conducting grating in each working area in front of and behind each board.
  3. Non-conducting handrails and guard rails shall be present on the board face.
  4. Dripshields shall be present and in good physical condition.
  5. All ground detection lights shall be in working order and no grounds should be indicated.
  6. All instrumentation (meters) shall be in good working order and recently calibrated. All controls and meters should be clearly and accurately identified.
  7. Where the generators can be paralleled all synchronizing controls and associated equipment for synchronizing generators should be functioning properly
  8. Overcurrent devices should be clearly and accurately identified.
  9. All openings where equipment has been removed are covered with blanks.
  10. Test operation of all bus transfer switches.
- 

### **DEFICIENCY ACTION**

REPLACE OR REPAIR DEFICIENT ITEM. ENSURE IT IS OPERATING PROPERLY.



**SYSTEM:** Electrical  
**SUBSYSTEM:** Distribution Panel Boards  
& Controllers

**ICR NUMBER: F**  
**02**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 111.05-21, 111.12, 111.30, 111.40, 111.54, 111.70  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

- A. DISTRIBUTION PANELS
    - 1. Ensure each distribution panel is adequately ventilated and protected from falling debris and dripping or splashing water.
    - 2. Verify each panel board has circuit directory containing circuit designation, load of each circuit, rating of each breaker.
  
  - B. CONTROLLERS
    - 1. Verify each controller is watertight or weathertight depending on location.
    - 2. Verify interlock equipment functions properly cutting power when controller is opened.
    - 3. Verify each controller contains a circuit diagram.
- 

### **DEFICIENCY ACTION**

REPLACE OR REPAIR DEFICIENT ITEM.

**SYSTEM:** Pollution Prevention  
**SUBSYSTEM:** Cargo Oil Containment  
(Drip Pans, Spill Rails)

**ICR NUMBER: G  
01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 33 CFR 155.310  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually inspect:

- a. Condition: No cracks, missing plugs, or build up of trash within containment
  - b. Remove any build up of product/water within containment area
  - c. Ensure discharge containment equipment is leak free and fitted with proper closure devices (valves/plugs)
- 

### **DEFICIENCY ACTION**

Make appropriate repairs

**SYSTEM:** Pollution Prevention  
**SUBSYSTEM:** Oil Transfer Procedures

**ICR NUMBER: G**  
**02**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 33 CFR 155.750  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visual inspection of:

- a. Transfer procedures accurately depict the system on barge and contain up to date emergency notification telephone numbers
- 

### **DEFICIENCY ACTION**

Replace or update transfer procedures

**SYSTEM:** Pollution Prevention  
**SUBSYSTEM:** Pollution Response Equipment

**ICR NUMBER: G  
03**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 33 CFR 155.205, 155.210, and 155.215  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually verify:

- a. Each tank barge must carry appropriate equipment and supplies for the containment and removal of on deck oil cargo spills of the amount listed in row A.:

	Offshore > 400 feet	Offshore < 400 feet	Inland
A	12 barrels	7 barrels	1 barrel
B	Sorbents	Sorbents	Sorbents
C	Non-sparking hand scoops, shovels and buckets	Non-sparking hand scoops, shovels and buckets	Non-sparking hand scoops, shovels and buckets
D	Containers for holding waste	Containers for holding waste	Containers for holding waste
E	Emulsifiers for deck cleaning	Emulsifiers for deck cleaning	Emulsifiers for deck cleaning
F	Protective clothing	Protective clothing	Protective clothing
G	Non sparking pump w/hoses	Non sparking pump w/hoses	
H	Scupper plugs	Scupper plugs	

- b. Disposable boom is connected together for fast response to a spill
- c. The area where the equipment is maintained is clear of any other non-spill related equipment

**NOTE:** Inland oil barges may rely on equipment available at the transfer facility provided prior arrangements have been made.

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### **DEFICIENCY ACTION**

Replace missing boom and/or pads. Connect disposable boom

**SYSTEM:** Pollution Prevention  
**SUBSYSTEM:** Oil Transfer Hose

**ICR NUMBER: G  
04**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 33 CFR 156.170(G)(1)  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Verify that:

- a. Cargo transfer hose has no kinks, bulges soft spots or any other defect that would permit the discharge of cargo through the hose material
  - b. The test date and MAWP are legibly stenciled/stamped on one end of the hose and that the annual test date is current
  - c. The hose is properly blanked when not in use
- 

### **DEFICIENCY ACTION**

Replace/test hose if necessary, re-stencil MAWP and annual test date.

**SYSTEM:** Cargo Transfer System  
**SUBSYSTEM:** Cargo Pump, Engine, Spark  
Arrestor and Fuel System

**ICR NUMBER: H**  
**01**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 32.02; 32.50-35; and 33 CFR 155.780  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Verify the following:

- a. Ensure all machinery guards are secured and in good condition
  - b. Check remote manual shutdown (emergency shutdown) for the cargo pump engine for freedom of movement and the ability to shutdown the engine
  - c. Check oil and antifreeze pump engine levels
  - d. Check pump angle drive lube oil and seal
  - e. Ensure spark arrester is secured to engine, and no cracks are located around muffler
  - f. Ensure pollution placard prominently located onboard barge
  - g. Check engine fuel system:
    - 1. Conduct visual inspection of operating machinery and piping for fuel/oil leaks and/or other unusual characteristics
    - 2. Ensure word "diesel" is painted/stenciled on each side of tank
    - 3. Check condition of tank vent pipe flame screen
- 

### **DEFICIENCY ACTION**

Make appropriate repairs or alterations

**SYSTEM:** Cargo Transfer System  
**SUBSYSTEM:** Thermal Fluid Heater

**ICS NUMBER:** H  
02

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 52.25-15, 61.30-20, 63.25-5  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visual/Operational inspection to include:

- a. Proper pre-purge
  - b. Burner ignition sequence checks, combustion control operation, fluid flow controls, limit controls high temperature controls, post-purge controls, safety relief valves, and verification of flame safeguard
  - c. Visual inspection of exhaust stack, and associated pumps and piping to check for rust, physical deterioration.
- 

### **DEFICIENCY ACTION**

Make any necessary repairs

**SYSTEM:** Cargo Transfer System  
**SUBSYSTEM:** Piping & Valves

**ICR NUMBER: H**  
**03**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 31.10-17, 32.50-15, 39; AND 33 CFR 156.170(3)  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually inspect:

- a. Controls; loading discharge and suction valves for freedom of movement and that packing is tight
- b. Gauges; the gauge used for the pump pressure is working and full of fluid
- c. No signs of leaks on the above deck cargo piping
- d. Vapor control system (if applicable) is in good repair , stenciled "Vapor System" and Vapor header properly indicated with red and yellow bands
- e. Vapor header flange stud properly installed, aligned and marked

Check to ensure:

- a. High level alarms and /or shutdowns engage at proper levels
  - b. Overfill spill valves react in accordance with approved plans
- 

### **DEFICIENCY ACTION**

Initiate proper repairs.



**SYSTEM:** Cargo Transfer System  
**SUBSYSTEM:** Tank Tops & Pressure Vessels

**ICR NUMBER: H**  
**04**

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### **AUTHORIZATION**

AUTHORIZED INSPECTOR: COMPANY TAIP EXAMINER  
REFERENCES: 46 CFR 31.10-17, 30.10-25; 33 CFR 155.815  
REGULATORY INSPECTION FREQUENCY: ANNUAL

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### **INSPECTION CRITERIA**

Visually inspect:

- a. Trunks are free of cracks/fractures and cleaned of spilled product
  - b. Cargo and ullage hatches in good condition, gaskets in place and dogs are free moving
  - c. Verify that PV valves are USCG approved and materials are compatible for cargoes listed on COI
  - d. Ensure valves are clean and in good working order by tearing down, cleaning, reassembling and where applicable, bench testing
  - e. Flame screens clean properly fitted with no tears, properly installation all PV's and goosenecks (30x30 mesh screen or 20x20 double mesh screen).
  - f. Cargo valve material appropriate (Dangerous Cargoes)
- 

### **DEFICIENCY ACTION**

Make appropriate repairs